<u>Amendments of the Claims</u>

The following listing of claims will replace all prior versions, and listings, of claims in the above-identified patent application:

<u>Listing of Claims</u>

1. (currently amended)   A method for analyzing <u>price</u> data, ~~that represents~~ <u>representing</u> price in a financial system that varies over time, said method comprising:

beginning at a first initial moment, acquiring
5   said price data during an initial first duration and determining an initial first range of said <u>price</u> data between a minimum value during said initial first duration and a maximum value during said initial first duration;

comparing said first range of said price data
10 during said initial first duration to a range of said price data expected, based on Brownian motion, during said initial first duration;

~~when said first range of said price data during~~
~~said initial first duration equals said range of said price~~
15 ~~data expected, based on Brownian motion, during said initial~~
~~first duration, concluding that said system is varying~~
~~erratically;~~

when said first range of said price data during
said initial first duration exceeds said range of said price
20 data expected, based on Brownian motion, during said initial first duration, concluding that said system is varying in a trend; and

when said first range of said price data during
said initial first duration is less than said range of said
25 price data expected, based on Brownian motion, during said initial first duration, concluding that said system is congesting.

2. (previously presented)   The method of claim 1 wherein said comparing comprises comparing said initial first range of said price data to a generated Brownian motion standard.

3. (previously presented)   The method of claim 2 further comprising, after said acquiring and before said comparing, applying bootstrapping techniques to said price data.

4. (currently amended)   The method of claim 1 further comprising:
beginning at said first initial moment, acquiring said price data during an initial second duration of
5 which said initial first duration is a multiple and determining an initial second range of said price data between a minimum value during said initial second duration and a maximum value during said initial second duration; wherein said comparing comprises:
10 computing an actual relationship of said initial first range to said initial second range and comparing [[an]] said actual relationship of said initial first range to said initial second range to an expected relationship of said initial first range to said initial second range, and determining from said comparison how said system is varying.

5. (currently amended)   The method of claim 4 wherein:
said comparing and determining comprises: computing an actual relationship comprises forming a ratio of
5 said initial first range to said initial second range; and[[:]]
said comparing and determining comprise:
when said ratio equals a square root of said multiple concluding that said system is varying erratically;

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10   when said ratio exceeds [[said]] a square root
    of said multiple, concluding that said system is varying in a
    trend[[;]], and
                when said ratio is less than said square root,
    concluding that said system is congesting.

            6. (currently amended)   The method of claim 4
    further comprising:
                beginning at a subsequent initial moment,
    acquiring said price data during a subsequent first duration
 5 and determining a subsequent first range of said price data
    between a minimum value during said subsequent first duration
    and a maximum value during said subsequent first duration;
                beginning at said subsequent initial moment,
    acquiring said price data during a subsequent second duration
10 of which said subsequent first duration is said multiple and
    determining a subsequent second range of said price data
    between a minimum value during said subsequent second duration
    and a maximum value during said subsequent second duration;
    [[and]]
15   comparing computing an actual relationship of
    said subsequent first range to said subsequent second range;
    and
                comparing said actual relationship of said
    subsequent first range to said subsequent second range to an
20 expected relationship of said subsequent first range to said
    subsequent second range, and determining from said comparison
    of said actual relationship of said subsequent first range to
    said subsequent second range to said expected relationship of
    said subsequent first range to said subsequent second range
25 how said system is varying.

            7. (currently amended)   The method of claim 6
    further comprising repeating, at respective multiple
    additional subsequent initial moments:

[[said]] acquiring said price data during each
5 respective subsequent first duration;
acquiring said price data during each
respective subsequent second duration;
computing a respective actual relationship of
each respective subsequent first range to each respective
10 subsequent second range;[[,]]
~~said determining and said~~ comparing ~~at multiple~~
~~additional subsequent initial moments~~ each respective actual
relationship of each respective subsequent first range to each
respective subsequent second range to [[an]] a respective
15 expected relationship of [[said]] each respective subsequent
first range to [[said]] each respective subsequent second
range; and
determining from [[said]] each respective
comparison how said system is varying.

8. (currently amended)   The method of claim 7
wherein ~~said comparing and determining comprises~~, for each of
said initial moments:
said computing a respective actual relationship
5 of each respective subsequent first range to each respective
subsequent second range comprises forming a ratio of [[said]]
each respective initial first range to [[said]] each
respective initial second range; and
said comparing and determining comprises:
10 ~~when said ratio equals a square root of said~~
~~multiple, concluding that said system is varying erratically;~~
when said ratio exceeds [[said]] a square root
of said multiple, concluding that said system is varying in a
trend[[;]], and
15 when said ratio is less than said square root,
concluding that said system is congesting.

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9. (currently amended) The method of claim 8
further comprising comparing respective ones of said ratio for
two consecutive ones of said initial moments and:

~~when each of said ratios equals a square root~~
5 ~~of said multiple, concluding that said system is varying~~
~~erratically;~~

when each of said respective ones of said ratio
exceeds [[said]] a square root of said multiple and a
subsequent respective one of said ratio exceeds a prior
10 respective one of said ratio, concluding that said system is
varying in a trend and said trend is accelerating;

when each of said respective ones of said ratio
exceeds said square root and a prior respective one of said
ratio exceeds a subsequent respective one of said ratio,
15 concluding that said system is varying in a trend and said
trend is decelerating;

when each of said respective ones of said ratio
is less than said square root and a prior respective one of
said ratio exceeds a subsequent respective one of said ratio,
20 concluding that said system is congesting and said congestion
is accelerating;

when each of said respective ones of said ratio
is less than said square root and a subsequent respective one
of said ratio exceeds a prior respective one of said ratio,
25 concluding that said system is congesting and said congestion
is decelerating;

when a prior respective one of said ratio is
less than said square root and a subsequent respective one of
said ratio exceeds said square root, concluding that said
30 system has moved from congestion into ~~an accelerating~~ a trend;
and

when a prior respective one of said ratio
exceeds said square root and a subsequent respective one of

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said ratio is less than said square root, concluding that said
35 system has moved from a ~~decelerating~~ trend into congestion.

        10. (currently amended) The method of claim 9
    further comprising:
            when said system is in a current condition of
    congestion or trend, comparing respective ones of said ratio
5   for three consecutive respective ones of said initial moments
    separated by equal time intervals; and
            deriving, from said comparison of said
    respective ones of said ratio for three consecutive respective
    ones of said initial moments, a prediction of when said system
10 will move from [[a]] said current condition of congestion or
    trend to another condition of congestion or trend.

        11. (currently amended) The method of claim 10
    further comprising displaying said prediction in the form of a
    closed curve with price data points from said three
    consecutive respective ones of said initial moments identified
5   on said closed curve.

        12. (previously presented)   The method of claim 1
    further comprising displaying said initial first range of said
    price data and said expected range of said price data.

        13. (original) The method of claim 12 wherein said
    displaying comprises displaying a line graph.

        14. (original) The method of claim 12 wherein said
    displaying comprises displaying an orbital plot.

        15-16. (cancelled)

        17. (previously presented)   The method of claim 1
    further comprising:
            beginning at a subsequent initial moment,
    acquiring said price data during a subsequent first duration

5 and determining a subsequent first range of said price data
between a minimum value during said subsequent first duration
and a maximum value during said subsequent first duration; and
comparing said subsequent first range of said
price data during said subsequent first duration to an
10 expected range of said price data during said subsequent first
duration.

18. (currently amended) The method of claim 17
further comprising:
beginning at said subsequent initial moment,
acquiring said price data during a subsequent second duration
5 of which said subsequent first duration is a multiple and
determining a subsequent second range of said price data
between a minimum value during said subsequent second duration
and a maximum value during said subsequent second duration;
wherein said comparing <u>said subsequent first range of said</u>
10 <u>price data during said subsequent first duration to an</u>
<u>expected range of said price data during said subsequent first</u>
<u>duration</u> comprises:
~~comparing~~ <u>computing</u> an actual relationship of
said subsequent first range to said subsequent second range<u>;</u>
15 <u>and</u>
<u>comparing said actual relationship of said</u>
<u>subsequent first range to said subsequent second range</u> to an
expected relationship of said subsequent first range to said
subsequent second range, and determining from said comparison
20 <u>of said actual relationship of said subsequent first range to</u>
<u>said subsequent second range to said expected relationship of</u>
<u>said subsequent first range to said subsequent second range</u>
how said system is varying.

19. (currently amended) The method of claim 18
further comprising repeating<u>,</u> ~~said acquiring, said determining~~

~~and said comparing~~ at multiple additional subsequent initial moments<u>:</u>

5   <u>acquiring said price data during each respective subsequent first duration;</u>

<u>acquiring said price data during each respective subsequent second duration;</u>

<u>computing a respective actual relationship of</u>
10   <u>each respective subsequent first range to each respective subsequent second range;</u>

<u>comparing each respective actual relationship of each respective subsequent first range to each respective subsequent second range to a respective expected relationship</u>
15   <u>of each respective subsequent first range to each respective subsequent second range; and</u>

<u>determining from each respective comparison how said system is varying.</u>

20. (currently amended) The method of claim 17 further comprising repeating ~~said acquiring, said determining and said comparing~~, beginning at multiple additional subsequent initial moments<u>:</u>

5   <u>acquiring said price data during each respective subsequent first duration;</u>

<u>computing a respective actual range of said price data between a minimum value during each respective subsequent first duration and a maximum value during each</u>
10   <u>respective subsequent first duration;</u>

<u>comparing each respective actual range during each respective subsequent first duration to a respective expected range during each respective subsequent first duration; and</u>

15   <u>determining from each respective comparison how said system is varying.</u>

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21. (currently amended) The method of claim 20 further comprising repeating, ~~said acquiring, said determining and said comparing~~ at multiple additional sets of multiple initial moments[[,]]:

5   said acquiring said price data during each respective subsequent first duration;

        said computing a respective actual range of said price data between a minimum value during each respective subsequent first duration and a maximum value during each

10   respective subsequent first duration; and

        said comparing each respective actual range during each respective subsequent first duration to a respective expected range during each respective subsequent first duration; wherein:

15   said duration ~~differing~~ differs for each said set.

22. (currently amended) Apparatus for analyzing price data, representing price in a financial system that varies over time, said apparatus comprising:

        means for, beginning at a first initial moment,
5   acquiring said price data during an initial first duration and determining an initial first range of said price data between a minimum value during said initial first duration and a maximum value during said initial first duration;

        means for comparing said first range of said
10   price data during said initial first duration to a range of said price data expected, based on Brownian motion, during said initial first duration; and

        means for concluding:

        ~~when said first range of said price data during~~
15   ~~said initial first duration equals said range of said price~~ ~~data expected, based on Brownian motion, during said initial~~ ~~first duration, that said system is varying erratically,~~

when said first range of said price data during said initial first duration exceeds said range of said price data expected, based on Brownian motion, during said initial first duration, that said system is varying in a trend, and

when said first range of said price data during said initial first duration is less than said range of said price data expected, based on Brownian motion, during said initial first duration, that said system is congesting.

23. (previously presented)   The apparatus of claim 22 further comprising a Brownian motion standard generator; wherein:

said comparing means compares said initial first range of said price data to a Brownian motion standard generated by said Brownian motion standard generator.

24. (cancelled)

25. (currently amended)   The apparatus of claim 22 further comprising:

means for, beginning at said first initial moment, acquiring said price data during an initial second duration of which said initial first duration is a multiple and determining an initial second range of said price data between a minimum value during said initial second duration and a maximum value during said initial second duration; wherein:

said comparing means ~~compares~~ computes an actual relationship of said initial first range to said initial second range and compares said actual relationship of said initial first range to said initial second range to an expected relationship of said initial first range to said initial second range~~, and determines from said comparison how said system is varying~~.

26. (currently amended) The apparatus of claim 25 wherein:

said means for comparing ~~and determining forms~~ computes said actual relationship by forming a ratio of said initial first range to said initial second range; and[[:]]

said concluding means:

~~when said ratio equals a square root of said multiple, concludes that said system is varying erratically;~~

concludes that said system is varying in a trend when said ratio exceeds [[said]] a square root of said multiple, ~~concludes that said system is varying in a trend;~~ and

concludes that said system is congesting when said ratio is less than said square root~~, concludes that said system is congesting~~.

27. (currently amended) The apparatus of claim 25 further comprising:

means for, beginning at a subsequent initial moment, acquiring said price data during a subsequent first duration and determining a subsequent first range of said price data between a minimum value during said subsequent first duration and a maximum value during said subsequent first duration;

means for, beginning at said subsequent initial moment, acquiring said price data during a subsequent second duration of which said subsequent first duration is said multiple and determining a subsequent second range of said price data between a minimum value during said subsequent second duration and a maximum value during said subsequent second duration; [[and]]

means for ~~comparing~~ computing an actual relationship of said subsequent first range to said subsequent second range; and

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<u>means for comparing said actual relationship of</u>
20 <u>said subsequent first range to said subsequent second range</u> to
an expected relationship of said subsequent first range to
said subsequent second range, and <u>for</u> determining from said
comparison <u>of said actual relationship of said subsequent</u>
<u>first range to said subsequent second range to said expected</u>
25 <u>relationship of said subsequent first range to said subsequent</u>
<u>second range</u> how said system is varying.

        28. (previously presented)   The apparatus of
claim 22 further comprising means for displaying said initial
first range of said price data and said expected range of said
price data.

        29. (original) The apparatus of claim 28 wherein
said displaying means displays a line graph.

        30. (original) The apparatus of claim 28 wherein
said displaying means displays a orbital plot.

        31-32. (cancelled)

        33. (previously presented)   The apparatus of
claim 22 further comprising:
        means for, beginning at a subsequent initial
moment, acquiring said price data during a subsequent first
5 duration and determining a subsequent first range of said
price data between a minimum value during said subsequent
first duration and a maximum value during said subsequent
first duration; and
        means for comparing said subsequent first range
10 of said price data during said subsequent first duration to an
expected range of said price data during said subsequent first
duration.

34. (currently amended) The apparatus of claim 33
further comprising:
                means for, beginning at said subsequent initial
moment, acquiring said price data during a subsequent second
5   duration of which said subsequent first duration is a multiple
and determining a subsequent second range of said price data
between a minimum value during said subsequent second duration
and a maximum value during said subsequent second duration;
wherein said comparing means ~~compares~~ computes an actual
10 relationship of said subsequent first range to said subsequent
second range and compares said actual relationship of said
subsequent first range to said subsequent second range to an
expected relationship of said subsequent first range to said
subsequent second range, and determines from said comparison
15 of said actual relationship of said subsequent first range to
said subsequent second range to said expected relationship of
said subsequent first range to said subsequent second range
how said system is varying.

                35. (currently amended) Apparatus for analyzing
price data, representing price in a financial system that
varies over time, said apparatus comprising:
                a data feed [[for]] that, beginning at a first
5   initial moment, ~~acquiring~~ acquires said price data during an
initial first duration; and
                a processor ~~for determining~~ that determines an
initial first range of said price data between a minimum value
during said initial first duration and a maximum value during
10 said initial first duration; wherein:
                said processor compares said first range of
said price data during said initial first duration to a range
of said price data expected, based on Brownian motion, during
said initial first duration; and
15   said processor concludes:

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when said first range of said price data during
said initial first duration equals said range of said price
data expected, based on Brownian motion, during said initial
first duration, concluding that said system is varying
20   erratically,

that said system is varying in a trend when
said first range of said price data during said initial first
duration exceeds said range of said price data expected, based
on Brownian motion, during said initial first duration,
25   concluding that said system is varying in a trend, and

that said system is congesting when said first
range of said price data during said initial first duration is
less than said range of said price data expected, based on
Brownian motion, during said initial first duration[[,]]
30   concluding that said system is congesting.

36. (previously presented)   The apparatus of
claim 35 further comprising a Brownian motion standard
generator; wherein:

said processor compares said initial first
5   range of said price data to a Brownian motion standard
generated by said Brownian motion standard generator.

37. (previously presented)   The apparatus of
claim 36 wherein said processor applies bootstrapping
techniques to said acquired price data.

38. (previously presented)   The apparatus of
claim 35 wherein:

said data feed, beginning at said first initial
moment, acquires said price data during an initial second
5   duration of which said initial first duration is a multiple;

said processor determines an initial second
range of said price data between a minimum value during said

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initial second duration and a maximum value during said
initial second duration; and

10 said processor compares an actual relationship
of said initial first range to said initial second range to an
expected relationship of said initial first range to said
initial second range, and determines from said comparison how
said system is varying.

39. (currently amended) The apparatus of claim 38
wherein said processor forms a ratio of said initial first
range to said initial second range and:

when said ratio equals a square root of said
5 multiple, concludes that said system is varying erratically;
concludes that said system is varying in a
trend when said ratio exceeds [[said]] a square root of said
multiple, concludes that said system is varying in a trend;
and

10 concludes that said system is congesting when
said ratio is less than said square root, concludes that said
system is congesting.

40. (currently amended) The apparatus of claim 38
wherein:

said data feed, beginning at a subsequent
initial moment, acquires said price data during a subsequent
5 first duration;

said processor determines a subsequent first
range of said price data between a minimum value during said
subsequent first duration and a maximum value during said
subsequent first duration;

10 said data feed, beginning at said subsequent
initial moment, acquiring acquires said price data during a
subsequent second duration of which said subsequent first
duration is said multiple;

said processor determines a subsequent second
15   range of said price data between a minimum value during said
subsequent second duration and a maximum value during said
subsequent second duration; and

said processor compares an actual relationship
of said subsequent first range to said subsequent second range
20   to an expected relationship of said subsequent first range to
said subsequent second range, and determines from said
comparison how said system is varying.

41. (currently amended) The apparatus of claim 35
further comprising a display ~~for displaying~~ that displays said
initial first range of said price data and said expected range
of said price data.

42. (original) The apparatus of claim 41 wherein
said display displays a line graph.

43. (original) The apparatus of claim 41 wherein
said display displays a orbital plot.

44-45. (cancelled)

46. (previously presented)   The apparatus of
claim 35 wherein:

said data feed, beginning at a subsequent
initial moment, acquires said price data during a subsequent
5   first duration;

said processor determines a subsequent first
range of said price data between a minimum value during said
subsequent first duration and a maximum value during said
subsequent first duration; and

10   said processor compares said subsequent first
range of said price data during said subsequent first duration
to an expected range of said price data during said subsequent
first duration.

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47. (previously presented)   The apparatus of claim 46 wherein:

said data feed, beginning at said subsequent initial moment, acquires said price data during a subsequent second duration of which said subsequent first duration is a multiple;

said processor determines a subsequent second range of said price data between a minimum value during said subsequent second duration and a maximum value during said subsequent second duration;

said processor compares an actual relationship of said subsequent first range to said subsequent second range to an expected relationship of said subsequent first range to said subsequent second range, and determines from said comparison how said system is varying.

48. (currently amended) A method for analyzing price data, representing price in a financial system that varies over time, said method comprising:

beginning at an initial moment, acquiring said price data during a ~~first~~ duration of a first length of time and determining a first range of said price data between a minimum value during said ~~first~~ duration of said first length of time and a maximum value during said ~~first~~ duration of said first length of time;

determining a second range, expected based on Brownian motion, of said price data during a ~~second~~ duration of a second length of time beginning at said initial moment; and

monitoring an instantaneous value of said price data during said ~~second~~ duration of said second length of time and determining that said system is varying in a trend when said instantaneous value is outside said expected second range.

49. (currently amended) The method of claim 48 wherein:

said ~~second~~ duration of said second length of time is a multiple of said ~~first~~ duration of said first length of time; and

said expected second range is a product of said first range and a square root of said multiple.

50-51. (cancelled)

52. (currently amended) Apparatus for analyzing price data, representing price in a financial system that varies over time, said apparatus comprising:

means for, beginning at an initial moment, acquiring said price data during a ~~first~~ duration of a first length of time and determining a first range of said data between a minimum value during said ~~first~~ duration of said first length of time and a maximum value during said ~~first~~ duration of said first length of time;

means for determining a second range, as expected based on Brownian motion, of said price data during a ~~second~~ duration of a second length of time beginning at said initial moment; and

means for monitoring an instantaneous value of said price data during said ~~second~~ duration of said second length of time and determining that said system is varying in a trend when said instantaneous value is outside said expected second range.

53. (currently amended) The apparatus of claim 52 wherein:

said ~~second~~ duration of said second length of time is a multiple of said ~~first~~ duration of said first length of time; and

said expected second range is a product of said first range and a square root of said multiple.

54-55. (cancelled)

56. (currently amended) Apparatus for analyzing price data, representing price in a financial system that varies over time, said apparatus comprising:

a data feed for, beginning at an initial moment, acquiring said price data during a ~~first~~ duration of a first length of time and monitoring an instantaneous value of said price data during a ~~second~~ duration of a second length of time beginning at said initial moment; and

a processor for:

determining ~~an initial~~ a first range of said price data between a minimum value during said ~~initial first~~ duration of said first length of time and a maximum value during said ~~initial first~~ duration of said first length of time,

determining a second range, expected based on Brownian motion, of said price data during ~~a second~~ said duration of said second length of time beginning at said initial moment, and

determining that said system is varying in a trend when said instantaneous value is outside said expected second range.

57. (currently amended) The apparatus of claim 56 wherein:

said ~~second~~ duration of said second length of time is a multiple of said ~~first~~ duration of said first length of time; and

said expected second range is a product of said first range and a square root of said multiple.

58-59. (cancelled)

60. (withdrawn)   A method for offering to
subscribers analysis of data that vary over time, said method
comprising:

        beginning at each of a plurality of initial
5 moments, acquiring said data during a plurality of respective
first durations;

        dividing said data into respective portions,
each of said respective portions including data for one or
more of said plurality of respective first durations;

10   transmitting said data to respective computers
operated by at least some of said subscribers at the option of
each individual subscriber;

        determining at each said respective computer,
for each respective first duration in said respective data
15 portion a respective first range of said data between a
minimum value during said respective first duration and a
maximum value during said respective first duration;

        determining at each said respective computer,
for each respective first duration in said respective data
20 portion a respective expected range of said during said
respective first duration;

        collecting said respective determinations of
said respective computers;

        comparing each respective range of said data
25 during each respective first duration to each respective
expected range of said data during said respective first
duration; and

        transmitting said comparison to said
subscribers.

61. (withdrawn)   The method of claim 60 further
comprising charging a respective subscription fee to each of
said subscribers, said respective subscription fee being lower
for a subscriber among said at least some of said subscribers

5   than for a subscriber outside said at least some of said
    subscribers.

         62. (withdrawn)   The apparatus of claim 56
    wherein said system is a biological system and said data are
    biological data.

         63. (withdrawn)   The apparatus of claim 56
    wherein said system is a meteorological system and said data
    are meteorological data.

         64. (withdrawn)   The apparatus of claim 52
    wherein said system is a biological system and said data are
    biological data.

         65. (withdrawn)   The apparatus of claim 52
    wherein said system is a meteorological system and said data
    are meteorological data.

         66. (withdrawn)   The method of claim 48 wherein
    said system is a biological system and said data are
    biological data.

         67. (withdrawn)   The method of claim 48 wherein
    said system is a meteorological system and said data are
    meteorological data.

         68. (withdrawn)   The apparatus of claim 35
    wherein said system is a biological system and said data are
    biological data.

         69. (withdrawn)   The apparatus of claim 35
    wherein said system is a meteorological system and said data
    are meteorological data.

70. (withdrawn)   The apparatus of claim 22 wherein said system is a biological system and said data are biological data.

71. (withdrawn)   The apparatus of claim 22 wherein said system is a meteorological system and said data are meteorological data.

72. (withdrawn)   The method of claim 1 wherein said system is a biological system and said data are biological data.

73. (withdrawn)   The method of claim 1 wherein said system is a meteorological system and said data are meteorological data.